UNITED STATES PATENT AND TRADEMARK OFFICE

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10/701,092	11/04/2003	Prasad P. Padiyar	H1310	4407

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ESCHWEILER & ASSOCIATES, LLC
NATIONAL CITY BANK BUILDING
629 EUCLID AVE., SUITE 1000
CLEVELAND, OH 44114

EXAMINER
ADHAMI, MOHAMMAD SAJID

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing@eschweilerlaw.com

	Application No.	Applicant(s)
Office Action Summary	10/701,092	PADIYAR ET AL.
	Examiner	Art Unit	
	MOHAMMAD S. ADHAMI	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 February 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

- Applicant's amendment filed 2/14/2008 is acknowledged.

- Claims 1,3,5,9,10,13, and 22 have been amended.

- Claims 1-22 are pending.

- Applicant's response and amendment with respect to the first office action rejection of claims 3,5, and 22 under 35 USC 112 2nd paragraph is noted and the rejection is withdrawn.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

    The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

        A steady state time period of 1 second is not enabled by the specification.

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

    The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 5,15,16, and 18-20 are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

In claim 5, the term "about" is a relative term which renders the claim

indefinite. The term "about" is not defined by the claim, the specification does

not provide a standard for ascertaining the requisite degree, and one of ordinary

skill in the art would not be reasonably apprised of the scope of the invention. In

claim 5, the term "about" renders the transmission and reception rate indefinite.

In claim 15, the limitation beginning with *setting an IPG* is confusing and

unclear as written.

Claims 16 and 18-20 are rejected because they depend from a rejected

claim.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1,2,4,6,8-11, and 13-21 (as best understood) are rejected under 35

U.S.C. 102(b) as being anticipated by Ramakrishnan (US 5,418,784).

Re claim 1:

Ramakrishnan discloses *a collision counter that tracks collisions* (Col.8 line 39 a collision counter).

Ramakrishnan further discloses *a programmable inter packet gap* (Col.4 lines 3-5 "increasing the IPG interval in equal steps until a maximum value equal to one slot time is reached").

Ramakrishnan further discloses *dynamically generating an IPG value as a function of the collision count and programmable parameters* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1)).

Ramakrishnan discloses *the parameters including at least one of a range IPG values, a convergence time, and a stable state time* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1), the convergence time is the time after a collision, the stable state time is a time slot interval and Col.4 lines 3-5 "increasing the IPG interval in equal steps until a maximum value equal to one slot time is reached).

Ramakrishnan further discloses *programming the inter packet gap with the dynamically generated IPG value* (Col.4 lines 14-15 "selecting an increased transmit-to-transmit interpacket gap (IPG) interval that must be observed").

Re claim 2:

        Ramakrishnan discloses *generating the IPG value after a steady state time period* (Col.5 lines 24-33 the time for the node to learn of the collision is the round-trip propagation delay, a maximum of 51.2 microseconds - where the IPG value is adjusted after learning of a collision, so the value is steady for the time period it takes to learn of the collision).

Re claim 4:

        Ramakrishnan discloses *generating the IPG values by testing a plurality of IPG value and evaluating a number of collisions for each of the IPG values, where the IPG values range from 96 bit times to about 272 bit times* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where N is the number of collisions – where 9.6 microseconds is 96 bit times).

Re claim 6:

        Ramakrishnan discloses *storing the collision counts associated with the IPG value* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the collision count is inherently stored and it is associated with an IPG value based on the formula 9.6+10(N+1) where N is the number of collisions experienced).

Re claim 8:

      Ramakrishnan discloses *generating the IPG value as a function of an IPG range, a step value, a convergence time, and a stable state time* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1), the convergence time is the time after a collision, the stable state time is a time slot interval).

Re claim 9:

      Ramakrishnan further discloses *transmitting and receiving at 100 Mbps in half duplex* (Col.1 lines 21-23 the present invention may also be applicable to a 100 Mbps channel and Abstract "IEEE 802.3" where IEEE 802.3 defines a half duplex mode).

Re claim 10:

      Ramakrishnan discloses *a plurality of network stations* (Col.1 lines 9-10 and 28 local area networks (LANs) of the Ethernet type, where a LAN has a plurality of nodes).

      Ramakrishnan further discloses *a station dynamically generating IPG values according to tracked collision counts and programmable parameters* (Col.8 lines 38-45 the IPG is computed based on the number of collisions experienced).

Ramakrishnan further discloses *a station dynamically generating IPG values according to tracked collisions counts and programmable parameters* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1)).

Ramakrishnan discloses *the parameters including at least one of a range IPG values, a convergence time, and a stable state time* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1), the convergence time is the time after a collision, the stable state time is a time slot interval and Col.4 lines 3-5 "increasing the IPG interval in equal steps until a maximum value equal to one slot time is reached).

Ramakrishnan further discloses *a network medium connecting the stations* (Col.1 lines 24-25 access to a network bus or cable, where the bus or cable connects nodes).

Re claim 11:

Ramakrishnan discloses *parameters including an IPG range and a step value* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1)).

Re claim 13:

Ramakrishnan discloses *setting one or more programmable parameters, which include at least one of a range of IPG values, a convergence time, and a stable state time* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1), the convergence time is the time after a collision, the stable state time is a time slot interval and Col.4 lines 3-5 "increasing the IPG interval in equal steps until a maximum value equal to one slot time is reached).

Ramakrishnan further discloses *dynamically determining an IPG value from the range of IPG values according to tracked collisions* (Col.8 lines 38-45 the IPG is computed based on the number of collisions experienced).

Ramakrishnan further discloses *programming the network device with the determined IPG value* (Col.4 lines 14-15 "selecting an increased transmit-to-transmit interpacket gap (IPG) interval that must be observed").

Re claim 14:

Ramakrishnan discloses *testing one or more IPG values of the range of IPG values* (Col.8 lines 38-45 the IPG is computed based on the number of collisions experienced where the IPG value is "tested" and if collision occurs, another IPG value is used).

Ramakrishnan further discloses *obtaining respective collision counts for the tested IPG values* (Col.8 lines 38-45 the IPG is computed based on the number of collisions experienced).

Ramakrishnan further discloses *selecting an IP value that yields a lowest collision count* (Col.4 lines 14-15 "selecting an increased transmit-to-transmit interpacket gap (IPG) interval that must be observed" and Col.8 lines 38-45 the IPG is computed based on the number of collisions experienced where the IPG value with the lowest collision count is used).

Re claims 15,16, and 18:

Ramakrishnan discloses *programming an IPG current value to a network device* (Col.4 lines 14-15 "selecting an increased transmit-to-transmit interpacket gap (IPG) interval that must be observed").

Ramakrishnan further discloses *obtaining a current collision count over a selected time period* (Col.3 lines 66-68 to Col.4 line 1 selecting a progressively larger interval after every collision experienced).

Ramakrishnan further discloses *setting an IPG modified value to the current IPG value with the current collision count* (Col.8 lines 38-45 the IPG is computed based on the number of collisions experienced where the IPG value selected is the one with the lowest current collision count).

Ramakrishnan further discloses *incrementing the IPG current value by a step value* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value

based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the step value is 10(N+1)).

Re claim 17:

Ramakrishnan discloses *the programmable parameters including a step value, a convergence time, and a stable state time* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1), the convergence time is the time after a collision, the stable state time is a time slot interval).

Re claims 19 and 20:

Ramakrishnan discloses *the IPG current value initially being 96 bit times and the step value being 1 bit time* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where N is the number of collisions).

Re claim 21:

Ramakrishnan discloses *a stable state period* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the stable state time is a time slot interval, which is "about" 60 seconds).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 3,5, and 22 (as best understood) are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ramakrishnan.

Re claim 3:

As discussed above, Ramakrishnan meets all the limitations of the parent

claim.

Ramakrishnan further discloses *the steady state time period* (Col.5 lines

24-55 the time for the node to learn of the collision is the round-trip propagation

delay, a maximum of 51.2 microseconds. The backoff time is selected from the

range of 0 to 1,023 slot times - where the IPG value is adjusted after learning of a

collision, so the value is steady for the time period it takes to learn of the

collision).

Ramakrishnan does not explicitly disclose *a steady state time period of 1*

second.

However, it has been held that where the general conditions of a claim are

disclosed in the prior art, it is not inventive to discover optimum or workable

dimensions by routine experimentation. *In re Aller*, 220 F.2d 454, 105 USPQ

233, 234 (CCPA 1955). Furthermore, where patentability is said to based upon

particular chosen range or dimension recited in a claim, the Applicant must show

that the chosen range or dimension is critical. *In re Woodruff*, 919 F.2d 1575,

1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Therefore it would have been obvious to one of ordinary skill in the art at

the time of the invention to have 1 second in such a dimension as claimed,

because the dimension is not critical since it can be optimized during routine

experimentation that would yield predictable results.

Re claim 5:

As discussed above, Ramakrishnan meets all the limitations of the parent

claims.

Ramakrishnan further discloses *the IPG values ranging from 96 bit times*

and overlapping 272 bit times (Col.8 lines 38-45 the IPG is computed as a

linearly increasing value based on the number of collisions experienced by

9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where N

is the number of collisions – where 9.6 microseconds is 96 bit times and 512 bit

times overlaps 272 bit times).

Ramakrishnan does not explicitly disclose *the IPG values having an upper*

limit of 272 bit times.

However, it has been held that where the general conditions of a claim are

disclosed in the prior art, it is not inventive to discover optimum or workable

ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 105 USPQ 233,

234 (CCPA 1955). Furthermore, where patentability is said to based upon

particular chosen range or dimension recited in a claim, the Applicant must show

that the chosen range or dimension is critical. *In re Woodruff*, 919 F.2d 1575,

1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Therefore it would have been obvious to one of ordinary skill in the art at

the time of the invention to have an upper limit of 272 bit times in such a range as

claimed, because the range is not critical since it can be optimized during routine

experimentation that would yield predictable results.

Re claim 22:

As discussed above, Ramakrishnan meets all the limitations of the parent

claims.

Ramakrishnan further discloses *a stable state period* (Col.8 lines 38-45

the IPG is computed as a linearly increasing value based on the number of

collisions experienced by 9.6+10(N+1). The value is limited to a maximum of

51.2 microseconds where the stable state time is a time slot interval).

Ramakrishnan does not explicitly disclose *a stable state period of 60*

seconds.

However, it has been held that where the general conditions of a claim are

disclosed in the prior art, it is not inventive to discover optimum or workable

dimensions by routine experimentation. *In re Aller*, 220 F.2d 454, 105 USPQ

233, 234 (CCPA 1955). Furthermore, where patentability is said to based upon

particular chosen range or dimension recited in a claim, the Applicant must show

that the chosen range or dimension is critical. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have 60 seconds in such a dimension as claimed, because the dimension is not critical since it can be optimized during routine experimentation that would yield predictable results.

3.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramakrishnan in view of Johnson (US 6,222,850).

Re claim 7:

As discussed above, Ramakrishnan meets all the limitations of the parent claims.

Ramakrishnan discloses

It is well known to one of ordinary skill in the art that a device has a driver to controls its functions; however, Ramakrishnan does not explicitly disclose *the IPG determiner and storage unit being part of a device driver*.

Johnson discloses *the IPG determiner and storage unit being part of a device driver* (Col.3 lines 37-38 "the device driver artificially extends the IPG" and Col.4 lines 24-25 The device driver manages a device driver buffer).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the IPG determining and storage unit as part of a device driver as taught by Johnson in order to maintain control of a device accessing a network.

7.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Ramakrishnan in view of Fellman (US 6,751,231).

Re claim 12:

As discussed above, Ramakrishanan meets all the limitations of the

parent claim.

Ramakrishnan further discloses *tracking the number of collisions* (Col.8

line 39 a collision counter).

Ramakrishnan does not explicitly disclose *tracking throughput and

modifying the IPG value to achieve a desired throughput.*

Fellman discloses *tracking throughput and modifying the IPG value to

achieve a desired throughput* (Abstract the device adapters may support latency

and throughput guarantees for real-time traffic by modifying the back-off protocol

and Col.12 lines 54-58 the interpacket gap may be reduced and Col.14 lines 28-

48 a throughput guarantee is provided and waiting for a time longer than IPG

and Col.3 lines 45-62 waiting a random amount of time until attempting

transmission again is known as backing off. The waiting time changes based on

the collisions.).

Ramakrishnan and Fellman are analogous because they both pertain to

network communications.

It would have been obvious to one of ordinary skill in the art at the time of

the invention to modify Ramakrishnan to include modifying the IPG value to

achieve a desired throughput as taught by Fellman in order to meet quality of

service guarantees.

Response to Arguments

4.   Applicant's arguments with respect to claims 3,5,7, and 22 have been considered

but are moot in view of the new ground(s) of rejection.

1.   Applicant's arguments filed 2/14/2008 have been fully considered but they are

not persuasive.

        In the remarks on pg.6, Applicant contends the amendment to claim 5

overcomes the 112 2nd paragraph rejection.

        The Examiner respectfully disagrees. The term "about" is still present in

claim 5 and renders the range of IPG values indefinite.

        In the remarks on pg.6, Applicant contends the claim 15 is not indefinite

and the term setting is a common term.

        The Examiner respectfully disagrees. The rejection of claim 15 is not

based solely on the word "setting". The limitation beginning with *setting an IPG*

value is confusing and unclear as written.

        In the remarks on pgs.8-9, Applicant contends Ramakrishnan does not

use programmable parameters as described in claim 1 to modify the function

when generating an IPG value.

The Examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., modifying the function when generating an IPG value) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Ramakrishnan does disclose generating IPG values as a function of parameters, which includes a range of IPG values (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by $9.6+10(N+1)$. The value is limited to a maximum of 51.2 microseconds). The range of IPG values is up to 51.2 microseconds, so the IPG value generated is a function of the IPG range.

In the remarks on pg.10, Applicant contends Ramakrishnan does not disclose *testing a plurality of IPG values*.

The Examiner respectfully disagrees. Ramakrishana does disclose *testing a plurality of IPG values* (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by $9.6+10(N+1)$. The value is limited to a maximum of 51.2 microseconds where N is the number of collisions). The IPG value is made based on the number of collisions experienced. Determining the number of collisions experienced is a test, therefore Ramakrishnan does test a plurality of IPG values.

In the remarks on pgs.10-11, Applicant contends Ramakrishnan does not disclose using an IPG range, a convergence time, and a stable state time for generation IPG values.

The Examiner respectfully disagrees. Ramakrishnan does disclose using an IPG range, a convergence time, and a stable state time for generation IPG values (Col.8 lines 38-45 the IPG is computed as a linearly increasing value based on the number of collisions experienced by 9.6+10(N+1). The value is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds, the step value is 10(N+1), the convergence time is the time after a collision, the stable state time is a time slot interval). The claim is not limited to using a formula that includes parameters for an IPG value, a convergence time, or a stable state time and therefore the disclosure reads on the invention as claimed.

In the remarks on pg.11, Applicant contends 9.6 is not the same as 96 bit times.

The Examiner respectfully disagrees. In a 10Mbps (Ramakrishnan Col.8 line 55), 10 bits are every microsecond, so 9.6 microseconds is a 96 bit time.

In the remarks on pg.14, Applicant contends Fellman does not disclose tracking throughput, modifying an IPG value, or modifying the back-off protocol.

       The Examiner respectfully disagrees. Fellman does disclose tracking throughput, modifying an IPG value, or modifying the back-off protocol (Abstract the device adapters may support latency and throughput guarantees for real-time traffic by modifying the back-off protocol). The throughput is tracked to be able to support the throughput guarantee. Fellman further discloses the IPG value can be modified (Col.12 lines 54-58 the interpacket gap may be reduced and Col.14 lines 28-48 a throughput guarantee is provided and waiting for a time longer than IPG). Fellman further discloses modifying the back-off protocol (Col.3 lines 45-62 waiting a random amount of time until attempting transmission again is known as backing off. The waiting time changes based on the collisions.).

Conclusion

2.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sherer (US 6,026,095) shows a device driver, IPG, and memory.

3.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

       A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MOHAMMAD S. ADHAMI whose telephone number is

(571)272-8615. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S. A./
Examiner, Art Unit 2616

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616